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U. S. TREASURY DEPARTMENT
UNITED STATES INTERNAL REVENUE

TRAFFIC IN NARCOTIC DRUGS



REPORT


OF

SPECIAL COMMITTEE OF INVESTIGATION
APPOINTED MARCH 25, 1918, BY THE
SECRETARY OF THE TREASURY

—
JUNE, 1919



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FOREWORD.

In publishing the report of the Special Narcotic Committee the department does not vouch for the accuracy of the figures given nor assume finality for the conclusions arrived at. A careful reading of the report will make clear the reasons for this statement. Complete and accurate statistics of the extent of drug addiction have never been compiled and are not now available. In view of the scattered sources of information and the fragmentary statistics secured, the report of the committee probably presents as comprehensive a survey as is possible under the circumstances of the problem from the humanitarian as well as from the administrative viewpoint.

The importance of securing accurate data regarding the extent and growth of the traffic in narcotic drugs is coming to be more keenly appreciated by all authorities and in the near future it is hoped that far more complete data will be made accessible to investigators. This report is presented to the public in the hope that it will enlist the interest and cooperation of all official and social agencies in working out the best program for effective administration of the antinarcotic laws and for the rebuilding of those unfortunate persons afflicted with the narcotic habit. To the end that our man power may be properly protected from this growing evil, all interested individuals and organizations are urged to furnish information regarding unsatisfactory conditions in their respective communities and to submit suggestions for the better enforcement of these laws.

REPORT OF SPECIAL NARCOTIC COMMITTEE.

WASHINGTON, D. C., *April 15, 1919.*

THE SECRETARY OF THE TREASURY

(Through the Commissioner of Internal Revenue).

SIR: The special committee appointed by your predecessor on March 25, 1918, to investigate the traffic in narcotic drugs has completed its work and the findings thereof are embodied in the following report which the undersigned have the honor of submitting herewith. The committee's investigations have been as thorough and extensive as possible with the facilities at hand and the time allotted to the work, and it is thought that the data herein presented convey with a fair degree of accuracy the conditions of the traffic in these drugs prevailing at the present time.

As not all narcotic drugs are habit forming or of importance in the sense understood by the committee, and as some of the habit-forming drugs commonly spoken of by the laity as narcotics are not narcotics in a medical sense, the committee has limited its investigations to the traffic in opium, its preparations and habit-forming alkaloids, and coca leaves, their preparations and habit-forming alkaloids. These are the drugs which are definitely covered by the Harrison Act and are most pernicious from the standpoint of habit formation. The nature and scope of the committee's activities are definitely stated in the outline which was drawn up at the beginning of the committee's labors, a copy of which was submitted to your predecessor.

For the purpose of securing information relative to the different phases of this traffic, as described in the above-mentioned outline, the committee has used every means at hand. Certain data were obtained through the efforts of individual members of the committee. Other information was secured through questionnaires addressed to individuals or institutions likely to be in possession of the same, and by consultation with individuals interested in the problem of drug addiction. Still other information was secured through the efforts of the internal-revenue agents. All information thus obtained was carefully weighed and that portion which, in the opinion of the committee, appeared to be of value has been used as the basis of this report.

In further compliance with the request of your predecessor, the recommendations of the committee for changes with a view to improv-

ing the present laws and regulations governing the sale and use of these drugs have been appended. These recommendations are based on the conditions set forth in this report and are, therefore, thought to be particularly pertinent.

COMMERCE IN NARCOTIC DRUGS.

The extent of the commerce in narcotic drugs in the United States can not be accurately estimated because of the fact that up until the present time the laws and regulations governing their sale and use did not make provisions for tracing these drugs from the importer to the ultimate consumer. Some idea of the magnitude and ramifications of this traffic may, however, be obtained from the following table:

Registrations under the Harrison Narcotic Law, year ended June 30, 1918.

Physicians-----	125,905	Hospitals, etc-----	3,799
Wholesale dealers-----	831	Educational-----	138
Dentists-----	42,240	Retail dealers-----	48,196
Manufacturers-----	888	Miscellaneous-----	258
Veterinarians-----	10,399		
Importers-----	76	Total-----	233,491

Neither can the value of this commerce be accurately estimated, as the crude drugs are in greater part manufactured into the more costly medicinal preparations and alkaloids. A minimum estimate can, however, be arrived at by computing their value on the basis of the retail price of the crude products. Thus, the average yearly consumption of opium for the period 1910 to 1915 was 491,043 pounds. At the present retail price of \$40 per pound, the total value would be \$18,841,720. The average yearly consumption of coca leaves for the same period was 1,048,250 pounds. At the present retail price of \$1 per pound the total value would be \$1,048,250. The grand total would, therefore, represent a value of approximately \$20,000,000.

From the information at hand, it is concluded that the larger part of these drugs pass directly from the hands of the importer to those of the manufacturer, where they become a part of medicinal preparations, or are manufactured into alkaloids. The following data compiled by the Bureau of the Census give a fair idea of the extent of these operations in 1914, except that they do not show the total quantities of alkaloids produced.

Of 4,092 manufacturers making patent and proprietary medicines and compounds and druggists' preparations, 382 reported the use of opium in their preparations, 300 reported the use of morphine or its derivatives, 138 reported the use of heroin, 142 reported the use of diacetyl morphine (heroin), and 136 reported the use of cocaine or its derivatives—a total of 1,098. The quantities of these materials used are as follows:

Narcotics used by manufacturers during 1914.

Opium.....	pounds..	118, 282
Morphine, or derivative.....	ounces..	316, 130
Heroin.....	do.....	13, 039
Diacetyl morphine.....	do.....	23, 859
Cocaine, or derivative.....	do.....	414, 255

A very considerable quantity of these drugs, however, is secured by the wholesaler, who disposes of them to the retailer (principally druggists, physicians, dentists, and veterinarians, although they are also handled in the form of exempt preparations and proprietary remedies by grocers and department stores), and eventually they reach the consumer through these channels.

The foregoing statements apply only to the legitimate traffic in these drugs. In addition, there is the so-called "underground" traffic, which is estimated to be equal in magnitude to that carried on through legitimate channels. This trade is in the hands of the so-called "dope peddlers," who appear to have a national organization for procuring and disposing of their supplies. For the most part, it is thought that they obtain their supplies by smuggling them from Mexico or Canada, although smaller quantities of these drugs are obtained from unscrupulous dealers in this country or by theft. Smuggling is also practiced to a considerable extent on the Atlantic and Pacific coasts, where the drugs arrive on ships hailing from Europe and the Orient. That considerable quantities of these smuggled drugs are exported from this country for the purpose of reentry through illicit channels appears to be indicated by the following data showing the increase in the exportation of opium, morphine, and cocaine to Canada in recent years:

Imports of opium and morphine into Canada from all sources, and from the United States, years ended Mar. 31, 1913-1918.¹

Description.	1913	1914	1915	1916	1917	1918
Total imports:						
Crude opium.....pounds..	5, 117	4, 436	7, 284	1, 741	15, 423	12, 471
Powdered opium.....do.....	301	257	267	170	659	51
Morphine.....ounces..	2, 035	4, 487	259	15, 495	52, 215	27, 520
From the United States:						
Crude opium.....pounds..	917	904	1, 823	1, 351	2, 413	.....
Powdered opium.....do.....	116	157	14	.....	62	.....
Morphine.....ounces..	5	207	59	12, 393	16, 496	* 9, 333

¹ Data obtained from "Unrevised monthly statements of imports for consumption and exports of the Dominion of Canada," compiled by the customs department, Ottawa.

² Computed on the basis of the importation of 17,682 ounces at a preferred tariff.

This illegitimate traffic has developed to enormous proportions in recent years and is a serious menace at the present time. It is through these channels that the addict of the underworld now secures the bulk of his supplies.

OPIUM AND COCAINE CONSUMED.

The consumption of narcotic drugs in this country has steadily increased from the date of their introduction. This is strikingly brought out by the following table.

Average annual consumption of opium, by decades, for the period 1860 to 1915, inclusive.

Decade.	Population.	Average amount of opium (9 per cent morphine) entered for consumption annually.	Average amount of opium (smoking) entered for consumption annually.	Average amount of opium (both kinds) entered for consumption annually.
		<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1860-1869.....	31,000,000	110,305	24,705	135,110
1870-1879.....	33,000,000	192,002	48,704	240,704
1880-1889.....	50,000,000	323,392	85,988	444,380
1890-1899.....	63,000,000	513,070	92,463	605,533
1900-1909.....	76,000,000	480,009	148,168	628,177
1910-1915.....	92,000,000	471,043		

This table shows further that, whereas the population of the United States was two and a half times as great in 1900 as in 1860, the amount of opium entered for consumption annually was approximately five times as great. This is particularly significant in view of the fact that the use of large amounts of synthetic somnifacients, such as chloral hydrate, sulphonal, trional, veronal, etc., during the last 25 years would be expected to have diminished to a great extent the use of opium or its alkaloids for legitimate medical purposes. This would indicate that the use of opium and its alkaloids for other than legitimate medical purposes has constantly increased.

Cocaine was first introduced into this country about 30 years ago, and at the present time the annual consumption of coca leaves, from which cocaine is obtained, amounts to 1,048,250 pounds. This condition prevails in spite of the fact that there are now in use a dozen or more synthetic substitutes which would naturally be expected to diminish the amount of cocaine used in proportion to the extent to which these substitutes are employed. This fact shows that there is undoubtedly a large quantity of cocaine used for illegitimate purposes, namely, for the satisfaction of addiction.

Imports of coca leaves, cocaine, egonine, and salts and derivatives into the United States, fiscal years ended June 30, 1911-1916.

Description.	1911	1912	1913	1914	1915	1916
Coca leaves.....pounds..	1,226,771	1,179,540	1,175,780	711,564	1,048,312	947,537
Cocaine, egonine, salts, and derivatives.....ounces..	4,031	2,004	3,715	3,290	170	4,275

It has been stated that about 90 per cent of the amount of these drugs entered for consumption is used for other than medical purposes. While this statement is probably extreme, a comparison of the per capita consumption in this country with that of other countries indicates that this country consumes from thirteen to seventy-two times as much opium per capita as is consumed by other countries, the records of which were available. The following table brings this out more clearly:

Per capita consumption of opium by United States and certain foreign countries.

Country.	Population. ¹	Total annual consumption.	Consumption per capita.
		<i>Pounds.</i>	<i>Grains.</i>
Austria.....	46,000,000	3,000-4,000	$\frac{1}{2}$ - $\frac{1}{4}$
Italy.....	33,000,000	6,000	1
Germany.....	60,000,000	17,000	2
Portugal.....	5,500,000	2,000	2 $\frac{1}{2}$
France.....	40,000,000	17,000	3 $\frac{1}{2}$
Holland.....	6,000,000	3,000	3
United States.....	92,000,000	470,000	36

¹ The population is that given for 1910.

As the average dose of opium is 1 grain, the amount consumed in the United States per annum is sufficient to furnish 36 doses for every man, woman, and child. When it is considered that the greater portion of our citizens do not take a single dose of opium year after year, it is manifest that this enormous per capita consumption is the result of its use for the satisfaction of addiction.

The amount of cocaine which can be produced from the coca leaves imported annually is approximately 150,000 ounces. This is sufficient to furnish every man, woman, and child of the country with 2 $\frac{1}{2}$ doses. It is estimated that only 25 per cent of this is used in legitimate medical or dental practice. Therefore, 75 per cent, or 112,500 ounces of cocaine which is manufactured in this country is used for illicit purposes, and this does not include that quantity which is smuggled into this country, of which no estimate can be made.

INFORMATION OBTAINED FROM REPLIES TO QUESTIONNAIRES.

In order to make a thorough and complete survey of narcotic drug addiction in all its phases, the committee formulated seven questionnaires, embodying questions covering the important points on which it appeared desirable to secure information. Each of these questionnaires was so arranged that it would bring forth the information which the persons addressed might possess, and at the same time be best adapted for the compilation of the statistics given.

The first two were preliminary questionnaires, one addressed to all physicians registered under the Harrison Narcotic Act, requesting

data as to the number of addicts under treatment by them at the time, and the other questionnaire was addressed to druggists, requesting a statement showing the number of narcotic prescriptions filled by them and the quantities of certain preparations containing narcotic drugs which were exempt under section 6 from all of the provisions of the original act.

ADDICTS UNDER TREATMENT BY PHYSICIANS.

Replies were received from approximately 30½ per cent. of the physicians registered in the different States, and these showed that there were under treatment at that time a total of 73,150 addicts. On the basis of 100 per cent replies, if the same average was maintained, there were under treatment at the time this questionnaire was sent out a total of 237,655 addicts. The following table, shows in detail by States the number of addicts reported under treatment, the percentage of replies received from physicians, and the estimated number on the basis of 100 per cent replies.

Number of addicts reported by physicians.

States.	Addicts reported.	Per cent of physicians replying.	Estimated number of addicts for 100 per cent replies.	States.	Addicts reported.	Per cent of physicians replying.	Estimated number of addicts for 100 per cent replies.
Alabama.....	739	6½	11,690	Nebraska.....	339	63½	536
Alaska.....	10	30	33	Nevada.....	50	27½	183
Arizona.....	353	(1)	353	New Hampshire.....	1,363	39½	3,460
Arkansas.....	1,250	65½	1,895	New Jersey.....	2,274	38½	5,900
California.....	912	27½	3,338	New Mexico.....	413	(1)	413
Colorado.....	581	60	974	New York.....	12,365	33½	37,095
Connecticut.....	974	56	1,740	North Carolina.....	2,211	27½	8,077
Delaware.....	166	42	395	North Dakota.....	153	16½	913
District of Columbia.....	443	42	1,055	Ohio.....	4,151	61½	6,749
Florida.....	882	25½	3,425	Oklahoma.....	2,422	53	4,500
Georgia.....	2,242	53½	3,865	Oregon.....	369	46½	799
Hawaii.....	99	(1)	99	Pennsylvania.....	3,791	36½	10,262
Idaho.....	7	½	875	Rhode Island.....	548	56	880
Illinois.....	2,274	27½	8,218	South Carolina.....	73	(1)	73
Indiana.....	1,540	18½	8,438	South Dakota.....	175	16½	1,045
Iowa.....	1,158	49½	2,496	Tennessee.....	5,366	65½	8,180
Kansas.....	1,477	77½	1,918	Texas.....	498	21	2,371
Kentucky.....	1,612	42½	3,972	Utah.....	35	½	4,375
Louisiana.....	1,110	6½	17,620	Vermont.....	612	39½	1,554
Maine.....	427	39½	1,081	Virginia.....	2,566	65½	3,931
Maryland.....	1,062	42	2,530	Washington.....	1,373	58½	2,347
Massachusetts.....	2,272	16½	13,770	West Virginia.....	1,642	71½	2,286
Michigan.....	2,752	47½	5,757	Wisconsin.....	422	(1)	422
Minnesota.....	1,249	69½	1,802	Wyoming.....	60	60	100
Mississippi.....	307	64	4,873				
Missouri.....	3,882	14½	26,958	Total.....	73,150	30½	237,655
Montana.....	16	½	2,000				

Per cent replying can not be given, as collectors summarized the data and did not furnish the number of reports.

NARCOTIC PRESCRIPTIONS FILLED BY DRUGGISTS.

Answers to the preliminary questionnaire addressed to druggists, of whom 52 per cent replied, show that there was a total of 9,511,938 narcotic prescriptions filled within one year. On the basis of 100 per cent replies, if the same conditions prevailed in the different sections

of the country, there was filled during this period a total of 18,299,-397 prescriptions containing narcotic drugs. The following table gives in detail the information obtained upon this point by this questionnaire:

Number of narcotic prescriptions dispensed, as reported by druggists.

States.	Narcotic prescriptions reported.	Per cent of druggists replying.	Estimated number of prescriptions for 100 per cent replies.	States.	Narcotic prescriptions reported.	Per cent of druggists replying.	Estimated number of prescriptions for 100 per cent replies.
Alabama.....	264,443	47 $\frac{1}{2}$	540,124	Montana.....	4,612	2 $\frac{1}{2}$	169,000
Alaska.....	1,427	72 $\frac{1}{2}$	1,965	Nebraska.....	88,420	75	117,893
Arizona.....	28,187	(¹)	28,187	Nevada.....	2,987	100	2,987
Arkansas.....	141,903	78 $\frac{1}{2}$	180,768	New Hampshire.....	23,287	23 $\frac{3}{4}$	98,311
California.....	270,334	100	270,334	New Jersey.....	389,073	67 $\frac{1}{2}$	565,584
Colorado.....	87,234	60 $\frac{1}{2}$	143,792	New Mexico.....	23,097	(¹)	23,097
Connecticut.....	151,857	73 $\frac{1}{2}$	207,455	New York.....	1,381,646	50	2,763,292
Delaware.....	23,650	44 $\frac{1}{2}$	53,446	North Carolina.....	313,048	67 $\frac{1}{2}$	462,632
District of Colum- bia.....	88,676	44 $\frac{1}{2}$	200,963	North Dakota.....	38,612	32	120,662
Florida.....	132,619	62 $\frac{1}{2}$	181,059	Ohio.....	361,886	75 $\frac{1}{2}$	480,379
Georgia.....	311,226	64 $\frac{1}{2}$	490,273	Oklahoma.....	148,075	56	264,419
Hawaii.....	551	(¹)	551	Oregon.....	82,351	73 $\frac{1}{2}$	109,470
Idaho.....	2,794	2 $\frac{1}{2}$	99,789	Pennsylvania.....	1,012,223	42 $\frac{1}{2}$	2,365,007
Illinois.....	454,761	27 $\frac{1}{2}$	1,659,711	Rhode Island.....	85,019	73 $\frac{1}{2}$	118,877
Indiana.....	188,005	73 $\frac{1}{2}$	256,837	South Carolina.....	138,533	(¹)	138,533
Iowa.....	111,909	72 $\frac{1}{2}$	153,721	South Dakota.....	39,285	32	122,765
Kansas.....	150,297	78 $\frac{1}{2}$	191,217	Tennessee.....	322,583	67 $\frac{1}{2}$	476,137
Kentucky.....	213,434	66 $\frac{1}{2}$	320,151	Texas.....	65,429	8	817,862
Louisiana.....	227,681	87 $\frac{1}{2}$	261,102	Utah.....	433	2 $\frac{1}{2}$	15,464
Maine.....	50,612	23 $\frac{1}{2}$	213,853	Vermont.....	26,855	23 $\frac{1}{2}$	113,472
Maryland.....	284,809	44 $\frac{1}{2}$	643,636	Virginia.....	229,881	37	621,300
Massachusetts.....	401,180	81 $\frac{1}{2}$	492,246	Washington.....	103,237	72 $\frac{3}{4}$	146,332
Michigan.....	201,418	53 $\frac{1}{2}$	373,688	West Virginia.....	130,881	76 $\frac{1}{2}$	171,813
Minnesota.....	157,126	92	170,789	Wisconsin.....	169,549	76 $\frac{1}{2}$	221,632
Mississippi.....	130,447	47 $\frac{1}{2}$	271,593	Wyoming.....	6,674	60 $\frac{1}{2}$	11,001
Missouri.....	253,782	67 $\frac{1}{2}$	374,309	Total.....	9,511,938	52	18,299,397

¹ Per cent replying can not be given, as collectors summarized the data and did not furnish the number of reports.

NARCOTIC PREPARATIONS DISPENSED WHICH ARE EXEMPT UNDER THE LAW.

In addition to the above information, the druggists were requested to furnish a statement of the quantities of the exempt preparations dispensed—Bateman's Drops, Godfrey's Cordial, paregoric, etc. The replies received showed that a total of 1,294 gallons and 175,858 bottles of Bateman's Drops had been sold by 52 per cent of the druggists who replied. Estimated on the basis of 100 per cent replies, there was a total of 2,508 gallons and 312,934 bottles of this exempt preparation sold by druggists within one year.

These druggists also reported the sale of 1,274 gallons and 228,344 bottles of Godfrey's Cordial. On the basis of 52 per cent replies, this indicates a total of 2,584 gallons and 441,056 bottles of this preparation sold within the same period.

Sales of paregoric were reported as follows: 77,383 gallons and 10,042 bottles. Basing the estimate of the total upon the 52 per cent of druggists who replied, there was sold a total of 143,328 gallons and 18,435 bottles of paregoric within one year.

For detailed statistics of the sales of these various preparations, see the following tables.

Bateman's Drops, Godfrey's Cordial, and paregoric dispensed, as reported by druggists.

BATEMAN'S DROPS.

States.	Per cent replying.	Reported to collectors.		Number for 100 per cent, estimate.	
		Gallons.	Bottles.	Gallons.	Bottles.
Alabama.....	47 $\frac{1}{2}$	27	25,781	57	54,372
Arkansas.....	78 $\frac{1}{2}$	3	876	4	1,110
Delaware.....	44 $\frac{1}{2}$	20	1,089	45	2,461
District of Columbia.....	44 $\frac{1}{2}$		391		833
Florida.....	62 $\frac{1}{2}$	17	10,418	20	16,749
Georgia.....	64 $\frac{1}{2}$	103	31,254	159	48,455
Illinois.....	27 $\frac{1}{2}$	5	1,001	17	3,653
Indiana.....	78 $\frac{1}{2}$	7	1,185	9	1,618
Iowa.....	72 $\frac{1}{2}$		89		122
Kansas.....	78 $\frac{1}{2}$	1	791	1	1,065
Kentucky.....	66 $\frac{1}{2}$	4	6,953	6	10,437
Louisiana.....	87 $\frac{1}{2}$	5	39	5	44
Maryland.....	44 $\frac{1}{2}$	14	5,444	31	12,264
Michigan.....	53 $\frac{3}{10}$		16		29
Minnesota.....	92		84		91
Mississippi.....	47 $\frac{1}{2}$	1	375	2	790
Missouri.....	67 $\frac{1}{2}$	1	1,545	1	2,278
Nebraska.....	75		6		8
New Jersey.....	67 $\frac{1}{2}$	174		259	
New York.....	50	7	2	14	4
North Carolina.....	67 $\frac{1}{2}$	267	10,591	394	15,653
Ohio.....	73 $\frac{1}{2}$	53	8,410	70	11,164
Oklahoma.....	56		537		1,048
Pennsylvania.....	42 $\frac{1}{2}$	218	2,345	509	5,460
South Carolina.....	(1)	12	10,440	12	10,440
Tennessee.....	67 $\frac{1}{2}$	36	7,440	53	10,981
Texas.....	8		61		762
Virginia.....	37	303	26,719	819	72,213
Washington.....	72 $\frac{1}{2}$		3		4
West Virginia.....	76 $\frac{1}{2}$	16	21,902	21	28,755
Wisconsin.....	76 $\frac{1}{2}$		16		20
Total.....	52	1,294	175,858	2,508	312,931

GODFREY'S CORDIAL.

Alabama.....	47 $\frac{1}{2}$	83	11,642	175	24,552
Arizona.....	(1)		18		18
Arkansas.....	78 $\frac{1}{2}$	16	10,986	20	13,969
California.....	100		136		136
Colorado.....	60 $\frac{1}{2}$	1	26		42
Connecticut.....	73 $\frac{1}{2}$	1	15	1	20
Delaware.....	43 $\frac{1}{2}$	27	543	60	1,227
District of Columbia.....	44 $\frac{1}{2}$	2	1,016	4	2,206
Florida.....	62 $\frac{1}{2}$	18	6,839	28	10,995
Georgia.....	64 $\frac{1}{2}$	48	17,643	74	27,353
Illinois.....	27 $\frac{1}{2}$	26	9,692	95	35,372
Indiana.....	73 $\frac{1}{2}$	24	12,785	32	17,466
Iowa.....	72 $\frac{1}{2}$		524		719
Kansas.....	78 $\frac{1}{2}$	2	1,654	2	2,104
Kentucky.....	66 $\frac{1}{2}$	20	13,549	30	20,323
Louisiana.....	87 $\frac{1}{2}$	6	563	7	646
Maryland.....	44 $\frac{1}{2}$	62	8,734	140	19,737
Massachusetts.....	81 $\frac{1}{2}$		181		222
Michigan.....	53 $\frac{3}{10}$	15	10,361	28	19,222
Mississippi.....	47 $\frac{1}{2}$	2	2,465	4	5,198
Missouri.....	67 $\frac{1}{2}$	7	8,042	10	11,861
Nebraska.....	75		21		28
New Jersey.....	67 $\frac{1}{2}$	30	35	45	52
New Mexico.....	(1)		42		42
New York.....	50	22	5,578	44	11,156
North Carolina.....	67 $\frac{1}{2}$	221	18,362	326	27,138
Ohio.....	73 $\frac{1}{2}$	183	26,749	243	35,509
Oklahoma.....	56		5,587		9,977
Pennsylvania.....	42 $\frac{1}{2}$	83	7,593	194	17,717

¹ Per cent replying can not be given, as collectors summarized the data and did not furnish the number of reports.

Bateman's Drops, Godfrey's Cordial, and paregoric, etc.—Continued.

GODFREY'S CORDIAL—Continued.

States.	Per cent replying.	Reported to collectors.		Number for 100 per cent, estimate.	
		Gallons.	Bottles.	Gallons.	Bottles.
Rhode Island.....	73½	.....	130	.....	177
South Carolina.....	(1)	14	11,781	14	11,781
South Dakota.....	32	.....	12	.....	37
Tennessee.....	67½	39	21,295	57	31,432
Texas.....	8	.....	730	.....	9,125
Vermont.....	23½	.....	12	.....	51
Virginia.....	37	309	4,491	835	12,138
Washington.....	72½	1	40	1	55
West Virginia.....	76½	12	8,308	16	10,909
Wisconsin.....	76½	1	194	1	254
Total.....	52	1,274	228,344	2,486	441,056

PAREGORIC.

Alabama.....	47½	5,904	1,344	12,451	2,834
Alaska.....	72½	1	.....	2	.....
Arizona.....	(1)	143	.....	143	.....
Arkansas.....	78½	2,091	92	2,663	111
California.....	100	2,048	.....	2,048	.....
Colorado.....	60½	45	.....	74	.....
Connecticut.....	73½	1,383	.....	1,889	.....
Delaware.....	44½	364	72	823	162
District of Columbia.....	4½	457	.....	1,032	.....
Florida.....	62½	1,586	2,909	2,549	4,677
Georgia.....	64½	4,108	3,224	6,369	4,999
Hawaii.....	(1)	40	.....	40	.....
Idaho.....	24	7	.....	250	.....
Illinois.....	27½	2,303	888	8,412	3,240
Indiana.....	73½	2,654	6	3,628	8
Iowa.....	72½	411	.....	564	.....
Kansas.....	78½	484	.....	615	.....
Kentucky.....	66½	1,746	60	2,619	90
Louisiana.....	87½	2,390	332	2,740	381
Maine.....	23½	826	.....	3,470	.....
Maryland.....	44½	2,814	.....	6,359	.....
Massachusetts.....	81½	3,404	.....	4,176	.....
Michigan.....	53½	1,020	24	1,892	44
Minnesota.....	92	382	.....	415	.....
Mississippi.....	47½	905	326	2,013	770
Missouri.....	67½	608	.....	896	.....
Montana.....	2½	4	.....	144	.....
Nebraska.....	75	336	.....	448	.....
Nevada.....	100	194	.....	194	.....
New Hampshire.....	23½	327	.....	1,381	.....
New Jersey.....	67½	3,185	.....	4,739	.....
New Mexico.....	(1)	96	.....	96	.....
New York.....	50	9,038	.....	18,076	.....
North Carolina.....	67½	3,062	133	4,525	196
North Dakota.....	32	85	.....	265	.....
Ohio.....	75½	3,929	.....	5,215	.....
Oklahoma.....	56	153	.....	273	.....
Oregon.....	73½	342	.....	466	.....
Pennsylvania.....	42½	8,637	84	20,179	193
Rhode Island.....	73½	586	.....	800	.....
South Carolina.....	(1)	1,126	.....	1,126	.....
South Dakota.....	32	208	.....	650	.....
Tennessee.....	67½	2,741	236	4,046	348
Texas.....	8	52	.....	650	.....
Utah.....	2½	4	.....	144	.....
Vermont.....	23½	220	.....	920	.....
Virginia.....	37	3,127	24	8,451	65
Washington.....	72½	505	10	986	14
West Virginia.....	76½	895	228	1,175	300
Wisconsin.....	76½	389	.....	508	.....
Wyoming.....	60½	18	.....	29	.....
Total.....	52	77,383	10,012	143,328	18,435

¹ Per cent replying can not be given, as collectors summarized the data and did not furnish the number of reports.

In explanation of the above figures, it may be stated that they do not include the sale of other exempt preparations which were made up by druggists and of which no record was kept, nor do they show the sales of the same or similar preparations by grocers and other wholesalers and retailers who, in certain States, are permitted to sell these exempt preparations without restriction.

In addition to the above-mentioned questionnaires, the committee sent out five others, as follows:

POLICE STATISTICS ON ADDICTION.

Questionnaire No. 1 was addressed to the chief of police of each of the 1,263 cities in the United States having a population of 5,000 or more. Replies were received from 760, of which 388 contained certain information, while 372 reported that they had no available records or data. This represents replies of approximately 60 per cent to the questionnaires, but only about 32 per cent contained any information.

The police officials in 34 cities reported an increase in narcotic drug addiction, while 287 cities reported a decrease. The increases reported were from the larger cities, while the decreases occurred in the smaller cities. Of those reporting an increase, 8 gave as a cause for this condition, prohibition; 8, association with other addicts; 6, because of free use of drugs by physicians; 4 reported increase due to immigration; 2 ascribed the increase to the creation of addicts by vendors because of the large profits; while 1 reported it due to lax laws.

Of those reporting a decrease in addiction, 80 ascribed this to the Harrison narcotic law; 62 stated it was due to the difficulty in procuring drugs; 26 to the laws in general; 24 gave as a reason State laws; 12 ascribed the decrease to the activity of police officials; 11 said it was due to the high price of drugs; 11 on account of prohibition; 11 because of death of addicts; 9 because of prosecutions for violations of laws; 9 because of restricted sales; 9 because of emigration of addicts to other parts; 5 to treatment and cure of addicts; 2 to activities of the State board of pharmacy; 1 because of refusal of physician to prescribe drugs, and 1 because of the selective draft.

The causes for drug addiction in the order of their frequency were given as follows: Use of physicians' prescriptions, association with other addicts, prohibition, use of narcotic drugs for chronic diseases, curiosity to learn the effects of the drug, prostitution, use of patent or proprietary medicines, use of certain narcotic drugs as a stimulant, idleness, and use by dentists.

With respect to the order of frequency in which the different drugs were used they reported as follows: Morphine, cocaine, heroin, opium, laudanum and paregoric, and codeine.

These officials also reported the arrest of 5,534 persons addicted to the use of drugs in 1916; 5,628 in 1917; and 5,443 in 1918. The population of the cities represented by these officials was 26,514,361, or approximately 25 per cent, of the total population of the country. If the same record of arrests prevailed throughout the smaller cities and rural districts, the number of addicts arrested, based on the population of the entire country, would be 21,772 for 1918. The offenses for which arrests of addicts were made are given in their order of frequency as follows: Larceny, burglary, robbery other than larceny, vagrancy, prostitution, disorderly conduct, assault and battery, drunkenness, murder, and forgery. In further explanation of these arrests it is stated by 46 officials that morphine was used by persons committing violent crimes; 46 stated that cocaine was used by persons committing violent crimes; 18 reported heroin, and 4 reported opium as the drug used by such persons. With respect to the lesser crimes, 62 officials reported morphine as the drug used by such persons, 23 reported cocaine, 14 opium, 13 heroin, 18 paregoric, 2 laudanum, 1 codeine, and 1 yen shee.

These police officials also reported 1,800 drug peddlers doing business in the United States at the present time. A number of these officials stated that they knew it to be a fact that peddlers secured their supplies by smuggling from Canada and Mexico. Others stated that smuggling from other countries, stealing, and through prescriptions written by unscrupulous physicians constituted the chief means of securing these drugs. The occupations of the peddlers were given as follows: Gamblers, taxicab drivers, domestics, solicitors, messengers, vagrants, lunch room helpers, pool room employees, porters, laundrymen, etc.

STATISTICS FROM PENAL INSTITUTIONS.

Questionnaire No. 2 was sent to a total of 3,271 wardens of State, county and municipal prisons and reformatories, to which 762 replied. Of these replies 126 contained certain information, and 636 were returned with the statement that no records had been kept and, therefore, no information was available. The total number of replies received represents 23 per cent of the questionnaires sent out, but the number containing information represents only 3.9 per cent of the total sent out.

The census report of 1910 shows the number of inmates of penal or reformatory institutions on January 1 of that year and during the year 1910 to have been 630,406. Figures showing the total number of inmates confined in such institutions during the years 1916, 1917, and 1918 were not available, but the replies to the questionnaire show that there were 1,376 addicts in 1916, 2,176 in 1917, and 1,861 confined in such prisons during 1918. These figures would apparently

indicate that only a small percentage of persons incarcerated in penal institutions are addicted to drugs, but this is an assumption which is partly negated by the fact that only a very small percentage of such institutions kept any records relative to drug addiction.

The following table gives information relative to the drugs used by addicts who were inmates of these institutions.

Classification of addicts in above institutions according to drug of addiction.

Drug.	1916	1917	1918	Total.	Drug.	1916	1917	1918	Total.
Gum opium.....	5	53	29	87	Paregoric.....	3	5	12	20
Smoking opium.....	76	101	83	260	Cocaine.....	100	144	133	377
Morphine.....	431	648	626	1,705	Cannabis or hashish.....	10	19	20	49
Heroin.....	588	829	508	1,925	Total.....	1,223	1,808	1,423	4,454
Codaine.....	4	7	4	15					
Laudanum.....	6	2	8	16					

The officials of these institutions reported the predisposing causes of addiction as follows: Low mentality in 198 cases, nervous diseases in 55 cases, chronic or painful illness in 49 cases, and other predisposing causes in 125 cases.

The manner in which the habit was acquired was reported to be as follows: Through direct administration by physicians in 64 cases, through physicians' prescriptions in 240 cases, through self-medication or the use of proprietary remedies in 18 cases, through association with other addicts in 974 cases, through other ways, including the white-slave traffic in 42 cases, and through surgical operations in 23 cases.

The order of frequency of addiction according to nativity was given as follows: American, Italian, Irish, English, Russian, Jewish, French, Negroes or Chinese, Mexican or Austrian, German or Canadian.

The reports of these officials also show that there was no connection between occupation and addiction, although they reported that the occupations of addicts in the order of their frequency are: Waiters, waitresses, chemists, paper hangers, laundrymen, laundresses, painters, cooks, mechanics, chauffeurs, tailors, salesmen, laborers, prostitutes, and vagrants.

STATISTICS OBTAINED FROM ALMSHOUSES.

Questionnaire No. 3 was sent to 2,464 superintendents of State, county, and municipal almshouses; 584 to superintendents of State hospitals; 471 to superintendents of insane asylums; 1,582 to county and municipal hospitals, making a total of 5,101 institutions. Only 1,520 replies were received, or approximately 30 per cent, of the total number mailed. Of these, only 330 contained information, or, in other words, only about 6 per cent of the institutions gave any information

of value to the committee. These replies showed that 1,774 addicts had been treated in these institutions during 1916, 1,535 during 1917, and 1,449 during 1918.

With respect to the drug of addiction, 111 were reported as using gum opium, 157 smoking opium, 3,072 morphine, 900 heroin, 30 codeine, 75 laudanum, 123 paregoric, and 24 cocaine.

As predisposing causes for addiction, low mentality or arrested development was mentioned in 924 cases, nervous diseases in 266 cases, chronic or painful illness in 590 cases, surgical operations in 160 cases, and unclassified causes in 595 cases.

In respect to the request for information relating to the manner in which addiction was acquired, direct administration by physicians was reported in 280 cases, through physicians' prescriptions in 364 cases, through self-medication and the use of patent or proprietary remedies in 206 cases, through association with other addicts in 1,275 cases, and through other ways in 355 cases.

The relative frequency of addiction in the above cases with respect to nationality was given as follows: American, Canadian, Irish, English, German, Scotch, Russian, French, Italian, Chinese, Mexican, Armenian, Swiss, and Swedish.

The occupations of addicts in order of their frequency were given as follows: Housekeepers, laborers, clerks, physicians, salesmen, nurses, pharmacists, actors, prostitutes, waiters, cooks, sailors and soldiers, horsemen, barbers, butchers, bartenders, draftsmen, teachers, and unemployed.

The institutions which replied to the question relating to diseases from which the addicts were suffering, reported that 40 were suffering from rheumatism, 45 from cancer, 62 from asthma, 159 from heart disease and nervous troubles, 106 from tuberculosis, 148 from venereal diseases, 71 from chronic diseases unclassified, and 56 from insanity.

Of the total number of institutions replying, 79 stated that they gave special treatment for narcotic drug addiction. The average length of time of treatment of an addict is reported as being 2 years 10½ months. The average daily cost per capita for treatment and maintenance was stated to be \$1.29.

HEALTH OFFICERS' REPORTS.

Questionnaire No. 4 was addressed to 3,023 State, district, county, and municipal health officers. To this questionnaire, 983 replies were received, or 33 per cent of the total number sent out. Only 777 of these, or 26 per cent of the total, contained any information of value to the committee. Most of these officials replied to the effect that

they kept no records of the number of drug addicts, nor had they any means of securing such information.

The number of addicts reported by the officials replying was given as 5,271 in 1916, 3,542 in 1917, and 2,877 in 1918.

The officials in 14 cities and counties reported an increase in drug addiction. The cause of the increase was given as immigration in 4 reports, prohibition in 3 reports, lax laws in 2 reports, and war conditions in 1. Officials in 627 cities and counties reported a decrease in number of addicts during this same period. The cause for decrease was given as the Harrison narcotic law in 317 reports, inability to obtain drugs in 145 reports, laws in general in 46 reports, State and Federal laws in 36 reports, deaths in 23 reports, treatment and cures in 21 reports, cooperation of physicians in 20 reports, emigration in 12 reports, prohibition in 8 reports, high cost of drugs in 7 reports, efforts to prohibit sales in 6 reports, cooperation of authorities in 5 reports, employment in war work in 3 reports, prosecution in 3 reports, and environment in 2 reports.

The predisposing causes of drug addiction in order of their frequency as stated in these reports are chronic diseases, prostitution, mental troubles, nervousness, and neurasthenia.

The ways in which the habit was acquired, stated in the order of their frequency, are as follows: Through physicians' prescriptions, use of drugs for chronic diseases, prohibition, association, use of patent medicines, prostitution, as a means of producing stimulation, and through curiosity.

In reply to the question relative to the nature of drug addiction, 425 health officials stated that the physicians in their communities regarded it as a disease, while 542 reported that they regarded it as a vice.

With respect to the treatment of drug addiction, 88 health officials reported that physicians in their community followed special procedures in the treatment of addicts, while 351 reported that the physicians followed the procedure commonly known as the reduction treatment. These health officials also stated that 192 cities and counties over which they had jurisdiction make provision for the treatment of addicts in almshouses and penal institutions.

PRIVATE HOSPITALS AND SANATORIA.

Questionnaire No. 5 was sent to 4,568 superintendents of private hospitals and sanatoria. Replies equal to 36 per cent of the total sent out were received. Only 227 of these questionnaires, however, contained any information of value to the committee. Most of them replied that no records were kept, or that the records of the institution were not arranged in such manner as would give the information desired.

The replies received showed that 506 addicts were being treated in these institutions during the year 1916, 551 during 1917, and 624 in 1918. Of the total number of patients treated by these institutions for the three-year period, 27 used gum opium, 21 smoking opium, 1,056 morphine, 297 heroin, 28 codeine, 17 laudanum, 55 paregoric, and 28 cocaine.

As predisposing causes for drug addiction, low mentality or arrested development was given in 102 cases, nervous diseases in 195 cases, chronic or painful illness in 180 cases, surgical operations in 154 cases, and other predisposing causes in 200 cases.

With respect to the manner in which addiction had been acquired, direct administration by physicians was given in 133 cases, the use of physicians' prescriptions in 93 cases, self-medication in 117 cases, association with other addicts in 205 cases, and in other ways, including the white-slave traffic, in 270 cases.

The nationality of addicts, where such information was given, is reported as American in 94 instances, German in 10, Irish in 8, English and Scotch in 6, Jewish in 5, French in 4, Austrian in 3, Russian and Grecian in 3, and Mexican in 2.

The occupations of addicts in the order of their frequency are reported as follows: Housewives, laborers, physicians, salesmen, actors and actresses, unemployment, business men, nurses, farmers, office workers, professional men and women, prostitutes, pharmacists, "dope" peddlers, mechanics, merchants, gamblers, newspapermen, and printers.

The diseases of addicts other than that of addiction are reported as venereal in 109 cases, tuberculosis in 14 cases, nervous troubles in 198 cases, insanity in 66 cases, lung diseases other than tuberculosis in 39 cases, abscess and cancer in 84 cases, stomach troubles in 5 cases, and heart disease in 7 cases.

These private institutions reported that the average length of time of treatment of opium addicts was 6½ weeks, morphine addicts 7 weeks, and cocaine addicts 6 weeks. The average cost per capita for treatment and maintenance is given as \$5.21 per day.

Of the total number of addicts treated in these institutions, 74 per cent are stated to have been benefited to some degree, and 61 per cent are said to have been permanently cured of their addiction.

SUMMARY.

Traffic in narcotic drugs.—Statistics compiled by the Department of Commerce show that the quantities of narcotic drugs imported into this country steadily increased from the date when the first entries were reported until our chief sources of supply were shut off as a result of the present war. In 1915 the quantities of these drugs consumed in this country amounted to approximately 490,000 pounds of opium and more than 1,000,000 pounds of coca leaves. These quan-

tities of opium and coca leaves, in their crude state and in the form of manufactured products, were supplied to the public through a total of 233,491 individuals and institutions registered under the Harrison Narcotic Act. The minimum value of these drugs computed on the basis of retail price of the crude material would be something over \$20,000,000. The actual cost to the consumer, while it greatly exceeds this amount, can not be estimated at the present time. When we take into consideration the fact that various investigators have stated that only from 10 to 25 per cent of the quantities of these drugs imported is actually needed to supply the demand for legitimate medical purposes, we can arrive at some idea of the quantities of these drugs consumed by addicts and the amount of money expended for the satisfaction of their addiction.

The foregoing represents only the extent of this traffic as carried on through legitimate channels. In recent years, especially since the enactment of the Harrison law, the traffic by "underground" channels has increased enormously, and at the present time it is believed to be equally as extensive as that carried on in a legitimate manner. This traffic is chiefly in the hands of so-called "dope peddlers," who obtain their supplies by smuggling from Canada, Mexico, and along the Atlantic and Pacific coasts.

Extent of drug addiction.—The number of individuals addicted to the use of opium, its preparations or alkaloids, and coca leaves, their preparations and alkaloids, in the United States has, at various times, been estimated to be from 200,000 to 4,000,000. These estimates must, however, be looked upon as mere guesses in most cases because of the fact that there have been no means available for reaching an accurate estimate in the past. The following table shows the number of addicts in the United States, or parts thereof, as estimated by a number of different investigators who have made a more or less extensive study of the situation.

Number of addicts, as estimated by various observers.

Observer.	Year.	Number of addicts.	United States or parts thereof.	Per cent of population.	Kinds of addicts.
T. D. Crothers.....	1912	1,000,000	United States.....	1.0	50 per cent morphine.
C. E. Terry.....	1913	887	Jacksonville, Fla..	1.31	All drugs.
L. P. Brown.....	1915	269,000	United States.....	.27	Do.
Do.....	1915	5,000	Tennessee.....	.22	Do.
M. I. Wilbert.....	1915	175,000	United States.....	.175	Opium.
Do.....	1915	80,000	do.....	.08	Cocaine.
Jeannette Marks.....	1915	4,000,000	do.....	4.0	Opium-cocaine.
Horatio C. Wood, jr.....	1916	100,000	do.....	.1	Opium.
J. R. Campbell.....	1916	15,000	New York State..	.16	All drugs.
Massachusetts committee on habit forming drugs.	1917	60,000	Massachusetts.....	1.6	Do.
George H. Whitney.....	1917	100,000	New York State....	1.0	Do.
Earnest F. Bishop.....	1918	200,000	do.....	2.0	Do.
Do.....	1918	100,000	New York City....	1.8	Do.
L. S. Hincley.....	1918	2,000,000	United States.....	2.0	Do.

- Owing to the lack of laws and regulations making it compulsory for the registration of addicts throughout the country or the keeping of any records as to their identity, it has been impossible for the committee to obtain information which would give the exact number of addicts in the United States at the present time. It is believed, however, that a fairly accurate estimate of their number can be made from the information which the committee has obtained. Attempts to accomplish this have been made as follows:

The number of addicts reported by the health officials replying to questionnaire No. 4 was 105,887. As this number represents the addicts reported by only 26 per cent of the health officials from which this information was requested, it may be assumed that had all the health officials replied the total number would have amounted to approximately 420,000. This number, however, appears to be much too low, in view of the fact that the physicians of the country are estimated to have had about 237,000 addicts under treatment during this same period, and only a small portion of the total number of addicts present themselves for treatment. Addicts of the "underworld," for instance, secure most of their supply through illicit channels and rarely, if ever, consult a physician.

It appears that a more accurate estimate of the total number of addicts may be obtained from the data secured by those investigators who have made an intensive study of drug addiction in certain restricted communities. For example, the health officer of Jacksonville, Fla., reported 887 addicts in that city in 1913. This number represents 1.31 per cent of the population. Upon this basis the total number of addicts in the United States, in 1918, taking the estimated population as 106,000,000, would be 1,388,600.

In reply to questionnaire No. 4 sent to health officers of States, counties, and municipalities, the health officer of New York City reported a total of 103,000 addicts, which is equivalent to 1.8 per cent of the population. On this basis, there would be 1,908,000 addicts in the United States.

Information in the hands of the committee indicates that drug addiction is less prevalent in rural communities than in cities or in congested centers. It would, therefore, be unfair to estimate the number of addicts in the entire country on the basis of the figures obtained for New York City. Furthermore, it is the opinion of the committee that an estimate based on the number of addicts in a small city like Jacksonville, Fla., would not be representative for the entire country. Taking these facts into consideration, the committee is of the opinion that the total number of addicts in this country probably exceeds 1,000,000 at the present time.

With respect to the increase or decrease in the number of addicts within the last year, the following statements can be made: In re-

sponse to the question Has narcotic drug addiction increased or decreased in the past few years? which inquiry was directed to 3,023 health officers and 1,263 chiefs of police, 962 expressed an opinion. Forty-eight stated that there had been an increase and 914 reported a decrease. Taking into consideration the population of the cities or counties reported by the officials giving these opinions, it is found that in practically every instance the increase reported was from the largest cities, and in particular in those cities where more than the usual attention is being directed to the eradication of drug addiction. Thus each of the 20 following cities, having an aggregate population of approximately 10,000,000 people, have reported an increase: San Francisco, Calif.; Wilmington, Del.; Macon, Ga.; Louisville, Ky.; Brockton, Mass.; Detroit, Mich.; Kansas City, Mo.; Elmira, N. Y.; New York City, N. Y.; Utica, N. Y.; Yonkers, N. Y.; Charlotte, N. C.; Muskogee, Okla.; Oklahoma, Okla.; Toledo, Ohio; Portland, Oreg.; Harrisburg, Pa.; Chattanooga, Tenn.; Knoxville, Tenn.; and Nashville, Tenn.

Replies in which a decrease in the number of addicts were reported were received chiefly from rural districts or smaller cities where little or no attention has been given this subject, so that it is quite possible that the opinions expressed by the officials resident in these places are at variance with the conditions as they actually exist. What effect, if any, nation-wide prohibition will have on the situation could not be definitely determined by the committee. The consensus of opinion of those interested in the subject appears to be to the effect that the number of addicts will increase as soon as the prohibition laws are enforced. These opinions are based, for the most part, on the theory that drinkers will seek a substitute for alcohol and that the opiates and cocaine will be found to be most satisfactory for this purpose. This opinion apparently receives some support from investigations made in some of the Southern States, where prohibition has been in effect for some years. It has been noted that in these States the sales of narcotic drugs and cocaine, and especially the sale of preparations exempt under section 6 of the Harrison Act, such as Bateman's Drops, Godfrey's Cordial, and paregoric, have greatly increased during this period. Whether or not this condition will become general when national prohibition becomes effective is a question which can not be answered at the present time.

Etiology of addiction.—The investigations of the committee have led to the conclusion that addiction to the use of these habit-forming drugs is not restricted to any particular race, nationality, or class of people. Anyone repeatedly taking a narcotic drug over a period of 30 days, in the case of a very susceptible individual for 10 days, is in grave danger of becoming an addict. And, when addiction has been established, it is impossible for the individual to discontinue the

use of the drug without outside assistance. These statements are supported by the opinion of medical men who were consulted on the matter and by reports which have appeared in medical journals. The more important findings of the committee which have a bearing on the subject of the etiology of drug addiction are as follows:

Data assembled by the committee show that the habit of using opiates or cocaine is acquired through association with addicts, through the physician, and through self-medication with these drugs, or patent or proprietary preparations containing the same. The first two ways in which addiction is acquired are of about equal importance at the present time, the last being of lesser importance in the light of the replies received to the questionnaires sent out.

With respect to this phase of the subject, the committee finds that addicts may be divided into two classes, namely, the class composed principally of addicts of the underworld and the class which is made up almost entirely of addicts in good social standing.

The addict of the underworld, in a large majority of cases, acquires the habit of using these drugs through his or her associates. This is probably due to the fact that addicts of this class make use of heroin and cocaine most frequently, these drugs being employed as a snuff. It is therefore an easy matter to treat a companion to a sniff of the "dope." In addition, these drugs are made use of by "white slavers" in securing and holding their prey, and by prostitutes in entertaining their callers.

With respect to the addict of good social standing, the evidence obtained by the committee points to the physician as the agent through whom the habit is acquired in the majority of cases. Some, however, become addicted to the use of these drugs through self-medication, while a few first indulge as a social diversion.

The drugs used by addicts in order of their frequency, as shown in the replies to all forms of questionnaires sent out by the committee, are as follows: Morphine, heroin, opium (all forms) and cocaine. Codeine, laudanum, and paregoric are reported as being used in about equal amounts, but to a lesser extent. In recent years the use of heroin has greatly increased, and in some communities it is at present used more extensively than any of the other drugs. This is believed to be due to the ease with which it can be taken, it being usually employed as a snuff, and to the fact that the habit is acquired by association in a large majority of cases. It is at present regarded by many as the most dangerous of these drugs from the standpoint of habit formation and the creation of new addicts.

The committee has obtained no information to show that there is any relationship between the age of individuals and susceptibility to addiction. The range of ages of addicts was reported as 12 to 75 years. The large majority of addicts of all ages was reported as

using morphine or opium or its preparations. Many of the older addicts were reported to have acquired the habit when still in their teens. Most of the heroin addicts are comparatively young, a large portion of them being boys and girls under the age of 20. This is also true of cocaine addicts, many of them, according to reports, being mere children.

The statistics compiled by the committee show that the greater part of the addicts in this country are American born. It is a rare occurrence to find an addict among the immigrants on their arrival in this country, although some of them become addicted to the use of these drugs after taking up their abode in this country. Of course this statement does not apply to the Chinese and certain other nationalities of the Orient. In the replies received to questionnaires sent out by the committee, practically every nationality was reported. These replies, however, did not show any relationship between nationality and extent of addiction among the foreign born.

Contrary to general opinion the committee finds that drug addiction is not more prevalent among females than males. Reports obtained from some parts of the country show that the females outnumbered the males, while in other sections, officials reported a preponderance of males. Taking all factors into consideration, it appears that drug addiction is about equally prevalent in both sexes.

The information collected by the committee does not show any direct relationship between any specific occupation and drug addiction. Addicts are found engaged in all lines of work. It has been stated that the percentages of addicts is greatest among people engaged in the practice of medicine or closely related occupations, such as the practice of pharmacy, dentistry, and nursing. The committee was, however, unable to confirm this report. From the statistics collected it appears, however, that a large portion of the addicts are not engaged in occupations which call for hard labor, and that many are not employed at all or work intermittently. This is especially true of cocaine and heroin habits.

Effect of addiction on health.—The committee is forced to conclude from its investigations that the habit-forming drugs herein mentioned produce a marked physical and mental deterioration in individuals addicted to their use.

The constant use of narcotics, such as opium, its preparations and alkaloids produces a condition in the human body which is beginning to be looked upon by physicians as a disease. This diseased condition requires the repeated administration of the drug of addiction to keep the body functioning normally or the institution of medical treatment. The mere withdrawal of the drug induces such fundamental disorganization and such painful disturbances that addicts are driven to any extreme to procure more of the drug with which to allay their

suffering. For years, individuals addicted to the use of opiates may appear quite normal to the ordinary observer, but close attention will usually reveal signs of diseased conditions as evidenced by variability of moods, waxy complexion, emaciation, diseased condition of the respiratory organs, heart, and kidneys. Continued addiction brings about sexual sterility and thus reduces the birthrate among this class. If impregnation occurs during a period of abstinence from the drug, and the mother later begins using the drug again, the child when born becomes addicted through the mother's milk.

The effect of cocaine is somewhat different. While it causes a more rapid physical and mental deterioration than the opiates, the changes produced are not as profound, and the drug may be completely withdrawn without danger of serious results following. In addition to the systemic effects of the use of cocaine, individuals addicted to this drug often show a perforation of the nasal septum as a result of the local action of the drug when it is used as a snuff. This condition has also been observed in heroin addicts, this drug being usually taken in the same manner. The committee also finds that insanity is not infrequently a result of the use of cocaine in the case of addicts.

In cases where any of these drugs are taken hypodermically, there is frequently noticed abscesses, scarring, and disfiguration of those parts of the body in which the needle was inserted. In general the physical deterioration which results from the continued use of any of these drugs brings about a diminution in the power of resistance so that the addict falls an easy prey to some other ailment, and thus very seldom reaches old age.

Effect of addiction on morals.—From information in the hands of the committee, it is concluded that, while drug addicts may appear to be normal to the casual observer, they are usually individuals weak in character and will, and lacking in moral sense.

The opium or morphine addict is not always a hopeless liar, a moral wreck, or a creature sunk in vice and lost to all sense of decency and honor, but may often be an upright individual except under circumstances which involve his affliction, or the procuring of the drug of addiction. He will usually lie as to the dose necessary to sustain a moderately comfortable existence, and he will stoop to any subterfuge and even to theft to achieve relief from the bodily agonies experienced as a result of the withdrawal of the drug. There are many instances of cases where victims of this disease were among the people of the highest qualities morally and intellectually, and of the greatest value to their communities, who, when driven by sudden deprivation of their drug, have been led to commit felony or violence to relieve their misery.

Addiction to the use of cocaine produces a much more rapid deterioration of mental powers and moral sense. It is this class of

addicts that most frequently commit moral wrongs and crimes of violence.

Among the addicts of the underworld, practically all show a low mentality, a lack of decency and honor. This condition, however, is not entirely due to the effect of these drugs as might be inferred, but is largely the result of degeneracy due to environment and association.

Relation of drug addiction to crime.—The committee finds that the drug habit has some bearing on the question of crime. Reports from officials of prisons and reformatories show that a number of the inmates are drug addicts. In 1916, the addicts in the city prison (Tombs) at Manhattan constituted 5 per cent of the total number of prisoners. There is, however, a great variety of evidence on this subject which has not yet been made clear.

The users of opium and morphine are seldom seen in the courts for brutal crimes. The offenses committed by them in the order of their frequency as indicated by replies to questionnaires sent out by the committee are larceny, burglary, vagrancy, forgery, assault, and violation of the drug laws. They are frequently aiders or abettors of crimes, but less commonly the leading actors in criminal conduct.

In cases where addicts have committed violent crimes, it is reported that they were users of cocaine or heroin. These are also the drugs which are most frequently used by prostitutes and those engaged in the "white-slave traffic." These drugs appear, therefore, to be the most obnoxious.

Economic aspect of drug addiction.—While the committee has been unable to secure sufficient data to enable it to formulate a statement which will convey exact knowledge of the economic phase of drug addiction, it is believed some idea of the economic loss to the country sustained through addiction may be gained from the cost of the drugs used by addicts and the loss through unemployment of those addicted. It has been computed by the State food and drug commissioner of one of the States having stringent regulatory laws that the average annual expenditure for an addict to satisfy his addiction amounts to \$61.18. Upon this basis of cost of drugs alone, the addicts of this country annually pay over \$61,000,000 for the satisfaction of addiction.

The figures obtained by the committee vary as to the average percentage of addicts regularly employed, employed part of the time, and not employed at all. But it is concluded from a careful analysis of these figures, as well as those obtained by other investigators who have made a study of this problem, that at least 25 per cent of the addicts are not steadily employed in gainful occupations. This would represent at least 250,000 unemployed addicts in the United States. At a conservative estimate this would represent the loss in wages of \$150,000,000 annually. These figures, however, do not in-

clude the cost of drug addiction to individuals as a result of loss through theft and burglary, nor the cost to the States and municipalities in the suppression and punishment of crime, and the care and treatment of those who eventually become a charge upon the community.

CONCLUSIONS AND RECOMMENDATIONS.

From the data obtained the committee is convinced that there is a nation-wide use of narcotic drugs for other than legitimate medical needs, and that such use for the satisfaction of addiction has materially increased in certain sections of the country despite the vigorous efforts exerted in the past four years in the enforcement of the Federal antinarcotic law, and in the enforcement of the laws of the States and municipalities which have enacted such for the control of habit-forming drugs. Furthermore, it is apparent from the replies to questionnaires sent out that there has been no definite or concerted action on the part of the majority of the State and municipal governments to suppress the illicit traffic and use of habit-forming drugs, and that there has been but little, if any, attempt made to secure accurate information concerning the problem of drug addiction as a basis for the enactment of proper legislation and regulation. The replies to the questionnaires sent out to State, county, and municipal officials show that a great majority of these officials kept no records and therefore had no information upon the subject. This condition is believed to be due principally to a lack of knowledge of the seriousness of the situation. In many cases it is no doubt partly due to the more or less general acceptance of the old theory that drug addiction is a vice, or depraved taste, and not a disease, as held by modern investigators. This attitude has had the effect of holding these unfortunate creatures up to public scorn, and thereby lessening any interest in their welfare. Records having a bearing on any and all phases of drug addiction are of sufficient importance to warrant immediate action for the purpose of remedying these conditions.

Inasmuch as the Harrison antinarcotic law has recently been amended by Congress in accordance with the suggestions made by the committee in its preliminary report, it is believed that the present Federal statute confers the necessary power for the effective control of the manufacture, sale, distribution, and administration of narcotic drugs, and it is the opinion of the committee that no further national legislation is necessary for this purpose at this time. It is, however, the opinion of the committee that there yet remain several phases of the narcotic problem which merit the consideration of the Congress.

One of the more important of these is the question of the responsibility for the care and treatment of addicts who, by reason of the

amended statute, will find it difficult, if not impossible, to obtain the supplies of drugs necessary to maintain their normal condition due to habituation. The enactment of legislation on the part of the National Government covering this phase of the problem, likewise the passage of similar measures by the States and municipalities, is deemed urgently necessary.

There also remains the international aspect of the opium traffic which should receive immediate consideration. If this and the other countries represented at the international opium convention are to effectually control the traffic in opium and other habit-forming drugs, some concerted action is necessary. It is, therefore, recommended that this country, through the State Department, take up this matter with the other powers which were signatory to the international agreement entered into at The Hague in 1912 with a view to persuading such Governments to enact the necessary legislation to carry out the terms of The Hague protocol. Otherwise, the task of this country of suppressing the illicit traffic in habit-forming drugs will be rendered much more difficult.

Pending the ratification of The Hague opium convention by the various powers and the enactment of necessary legislation to carry out the terms thereof, it is urgently recommended that the United States Government take up with the Governments of the Dominion of Canada and Mexico the subject of more effective control of the manufacture and exportation of narcotic drugs therefrom for the purpose of securing their cooperation with this Government in the suppression of the smuggling of such drugs from one country into the other, which now affords the principal source of supply for the illicit traffic in these drugs.

It is also recommended that educational campaigns be instituted in all parts of the United States for the purpose of informing the people of this country, including the medical profession, of the seriousness of drug addiction and its extent in the United States, and thereby secure their aid and cooperation in its suppression.

It is also recommended that both public and private medical organizations which have research facilities be requested to undertake studies to determine the nature of drug addiction with the view of improving the present forms of treatment or evolving some new and more efficient method of handling these patients. The latter statement is made in view of the fact that at the present time there are numerous forms of treatment for drug addiction, none of which appear to have been given a thorough trial by the medical profession, as a whole, or to have received the unqualified support of those members of the profession who have had no financial interest in the matter.

It is the opinion of the committee, based on the results of its investigations, that the medical need for heroin, a derivative of morphine, is negligible compared with the evil effects of the use of this alkaloid, and that it can easily be replaced by one of the other alkaloids of opium with the same therapeutic results, and with less danger of creating habituation. Therefore, consideration should be given the subject of absolutely prohibiting the manufacture, sale, distribution, or administration of this most dangerous drug by the States and municipalities.

Respectfully,

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